sequences in human, mouse, rat (our original data) and guinea pig to be highly conserved. The cDNAs so obtained have been labelled and used as probes to isolate full-length pig DAF cDNA clones from a pig testis cDNA library.--

33 Cancel

REMARKS

Responsive to the requirement for submission of a sequence listing, a suitable sequence listing has been prepared, and is attached to the present amendment, in paper and disk formats. Applicants hereby state that the content of the attached paper and disk versions of the sequence listing are the same.

Additionally, the specification has been appropriately amended at pages 13, 26 and 43, so as to introduce the sequence identification numbers.

It is believed that these actions place this application in condition for examination on the merits, and such action is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

YOUNG & THOMPSON

By _____

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January 22, 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Paragraph beginning at line 15 of page 13 has been amended as follows:

Figure 4 is a comparison of pig CD59 protein sequence (SEQ ID NO: 1) with that of human (SEQ ID NO: 20), rat (SEQ ID NO: 21) and mouse (SEQ ID NO: 22) CD59. Numbering refers to the predicted pig CD59 sequence, with the first residue of the mature protein known from protein sequencing to be L. Vertical lines (¦) show identity of conserved residues between pig CD59 and other species.

Paragraph beginning at line 16 of page 26 has been amended as follows:

Degenerate primers A-PIG ($TG^{C}/_{T}TA^{C}/_{T}AA^{C}/_{T}TG^{C}/_{T}AT^{A}/C/_{T}AA$) (SEQ ID No. 3) and C-PIG ($AG^{G}/_{A}TC^{C}/_{T}T^{C}/_{T}^{C}/_{T}T^{G}/_{T}^{G}/_{A}CA^{G}/_{A}CA$) (SEQ ID No, 4) were derived from amino-terminal protein sequence corresponding to residues 3-8 (CYNCIN) of pig CD59 and a region of high inter-species homology of all known CD59 sequences close to the C-terminus corresponding to residues 63-68 (SEQ ID NO: 23) (CCKKDL) in human CD59. The approximate positions of these primers are shown in the schematic diagram of the pig CD59 cDNA (Figure 1). A variation on the touchdown procedure of Don *et al* Nucleic Acids Res. 19:4008 was performed, with 500ng of each primer used in the amplification. A denaturation at 95°C for 4 minutes was followed by initial cycling parameters of 94°C for

30s, 54° for 40s and 72°C for 45s. Thereafter the annealing temperature of the reaction was decreased 2°C every second cycle from 54°C to a touchdown of 40°C at which temperature 25 cycles were carried out.

Paragraph beginning at line 26 of page 42 has been amended as follows:

Amino-terminal sequencing was obtained through the first 14 residues, 12 of which were identified with confidence. The sequence (SEQ ID NO: 24) (DCGLPPxVPxAQPA) was highly homologous with the amino terminal sequence of human DAF. Partial cDNA sequence has been obtained using a PCR-based approach with a primer designed from the above sequence and from internal protein sequences predicted from comparisons of DAF sequences in human, mouse, rat (our original data) and guinea pig to be highly conserved. The cDNAs so obtained have been labelled and used as probes to isolate full-length pig DAF cDNA clones from a pig testis cDNA library.